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KENTIISI [TRUNCATED QUADRILATERAL PYRAMID] BLOCK

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[There are no amendments to this patent.]

Claims

1. A type of KENTIISI block [truncated quadrilateral pyramid block] characterized by the following facts: the KENTIISI block is made of concrete and has an integrated shape with a rectangular face plate and anchor plate connected by a column body; a protruding portion having a step surface protruding from the side edge surface is set on the inner side of the central portion of a side edge of the face plate and anchor plate; this step surface fits the inner sloped surfaces of the face plate and anchor plate at corner portions of a block of the same shape set adjacent to said side edge of the block.

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2. The KENTIISI block described in Claim 1 characterized by the fact that said step surface is a partial cylindrical surface or a partial truncated conical surface.

Detailed explanation of the invention

This device pertains to improvement of KENTIISI blocks that are stacked up along a sloped surface to form a holding wall for preventing collapse of the sloped surface.

The shapes of conventional KENTIISI blocks are shown in Figures 1 and 2. As shown in Figures 4 and 5, holding wall (2) is constructed to prevent collapse of earth (1) piled up along the sloped surface of land. In this case, (3) and (4) represent unit KENTIISI blocks. As shown in Figures 2 and 5, block (4) has an integrated structure with rectangular face plate (5) and anchor plate (6) connected by column body (7). As shown in Figures 1 and 4, block (3) consists of only face plate (5) and column body (7). (8) represents filling concrete that is injected to fill the void portion of blocks (3) and (4) that are stacked up.

For KENTIISI blocks (3) having no anchor plate (6), it is impossible to stack only the blocks (dry masonry). Consequently, filling concrete (8) is applied to fill the voids among blocks (3)...(3) so as to solidify them while they are stacked up layer by layer. This makes the operation complicated, and is thus undesirable. On the other hand, for KENTIISI blocks (4) having anchor plate (6), after plural layers of the blocks are dry stacked, filling concrete is flowed in to solidify them. In this way, the operation efficiency can be increased. However, for these blocks (4) also having anchor plate (6), since blocks (4)...(4) that are dry stacked are set in contact with each other only at the side edge surfaces between face plates (5) and anchor plates (6), workers have to be very careful to ensure that blocks (4)...(4) are stacked up correctly, and, when filling concrete (8) is injected, the blocks may shift and diverge from the holding wall surface. This is undesirable. Also, for such blocks (4), stress is concentrated at the connecting portion between column body (7) and anchor plate (6), this portion is prone to damage, and portions where attachment between filling concrete (8) and block (4) is poor may be broken, so that the block is driven out by the pressure of the earth to protrude from the holding wall surface.

In order to prevent mutual divergence between blocks during dry masonry, as shown in Figure 3, cut-in (9) is formed on the side edges of face plate (5) and anchor plate (6). However, as cut-in (9) is formed, the thickness of the side edge portion of face plate (5) decreases, so that damage may be easily incurred. Also, for such blocks, it is impossible to form a curving holding wall. This is also undesirable.

The objective of this device is to solve the aforementioned problems of conventional KENTIISI blocks by providing a type of KENTIISI block which has a simple structure yet can reliably prevent mutual divergence of positions of blocks in dry masonry and does not decrease the strength of the block. Also, this device provides a type of KENTIISI block characterized by

the fact that even when the connecting portion between the face plate and the anchor plate is broken, there is still no protrusion of the block under pressure of the earth, and the block can be used to construct a bending holding wall.

That is, this device provides a type of KENTIISI block characterized by the following facts: as can be seen in the application example shown in Figures 6 and 7, on the inner side of the central portion of one side edge (11) and (12) of face plate (5) and anchor plate (6) of blocks (10a) and (10b), protruding portion (17) having step surfaces (15), (16) protruding from side edge surfaces (13), (14) is set; said step surfaces (15), (16) are fit to the inner sloped surfaces of the face plate and anchor plate at the corner portions of blocks of the same shape set adjacent to said side edges (11), (12) of blocks (10a), (10b). Figure 6 illustrates Application Example 1 of this device, and Figure 7 illustrates Application Example 2 of this device. In the application examples, subscripts a and b indicate the portions in the different forms. In the specification, said subscripts a and b are omitted when a common constitution and function can be described.

Figure 8(a) is a front view of the holding wall surface constructed by KENTIISI blocks (10a), (10b). Figure 8(b) is a cross-sectional front view illustrating the state after cutting off face plate (5) of KENTIISI blocks (10a), (10b) in the dry masonry. In Figure 8, unit block A is the focus of attention. This block A is coupled to blocks B, C and step surfaces (15), (16) of protruding portion (17) of said block are fit to the corner inner slope surfaces of face plate (5) and anchor plate (6) of blocks B, C stacked above block A. The two lower corner portions of face plate (5) and anchor plate (6) of block A are fit to step surfaces (15), (16) of protruding portion (17) of blocks D, E positioned below said block A, which block is coupled to blocks D, E. Also, coupling is made with adjacent blocks F, G via said blocks B, C, D, E. Consequently, said unit block A is coupled to all of the surrounding blocks, that is, blocks B-G. Due to such coupling, when the blocks are stacked, the relative positioning of the blocks can be performed easily, and the operation can be finished in a shorter time. Even when the filling concrete is injected, there is still no divergence between the blocks. Also, there is no decrease in the strength of the blocks, and as the shape of the blocks is not complicated, their formation is not difficult.

In Application Example 2, step surfaces (15b), (16b) of protruding portion (17b) are formed as a partial cylindrical surfaces or partial truncated conical surfaces. As shown in Figure 9, even when the blocks adjacent to each other are set at an angle in the vertical direction, it is still possible to fit step surfaces (15b), (16b) with the corner portions of face plate (5) and anchor plate (6), and it is possible to construct a curved holding wall from blocks (10b) that are coupled to each other. In this case, the radius of said partial cylindrical surface or partial truncated conical surface is nearly equal to the inner slope distance between face plate (5) and anchor plate (6). When the constructed holding wall bends outward, it is necessary for length L of anchor plate (6) to be smaller than length W of face plate (5). Adjustment of the length of anchor plate (6) can be

performed easily by filling an appropriate filling material into the voids of the mold for forming block (10b).

In addition, for block (10b) in Application Example 2, recess (18) is set at the central portion of said protruding portion (17b). By setting said recess (18), as shown in Figure 10, in this structure, filling concrete (8) also enters said recess (18), so that even when the connecting portion between anchor plate (6) and column body (7) is broken, the block still does not protrude.

As explained above, for the KENTIISI block of this device, while the structure is simple, the stacked blocks are coupled to each other free of divergence in position. Due to the mutual coupling among the blocks, the relative positions of the blocks are defined. Consequently, when the blocks are stacked, positioning can be performed easily, and the operation can be performed quickly.

Also, by adopting the embodiment illustrated in Figure 7, it is also possible to construct a curved holding wall from blocks that are coupled to each other. It is possible to prevent protrusion of the block from the holding wall surface due to damage to a block. This is an excellent effect.

Brief description of the figures

Figures 1 and 2 are oblique views illustrating conventional KENTIISI blocks. Figures 4 and 5 are cross-sectional views of a holding wall constructed by the masonry of the blocks. Figure 3 is an oblique view illustrating conventional KENTIISI blocks with cut-ins formed to prevent mutual position divergence of the blocks in dry masonry. Figure 6 is an oblique view illustrating Application Example 1 of the KENTIISI block of this device. Figure 7 is an oblique view illustrating Application Example 2. Figure 8(a) is a front view of the holding wall constructed by the KENTIISI blocks. Figure 8(b) is a cross-sectional front view with the face plate of blocks cut off to illustrate the dry masonry state of the KENTIISI blocks of this device. Figure 9 is a plan view illustrating the relationship among blocks of Application Example 2 that are used to form a curved holding wall. Figure 10 is a partial cross-sectional view of a holding wall constructed from the blocks in Application Example 2.

- 5 Face plate
- 6 Anchor plate
- 7 Column body
- 10 KENTIISI block
- 11, 12 One side edge
- 13, 14 Side edge surface

15, 16 Step surface

17 Protruding portion

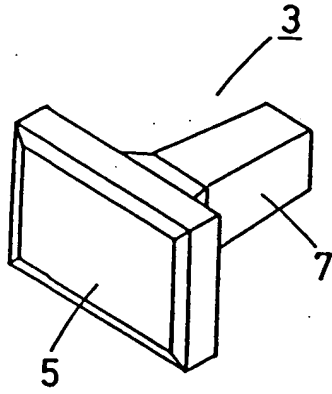


Figure 1

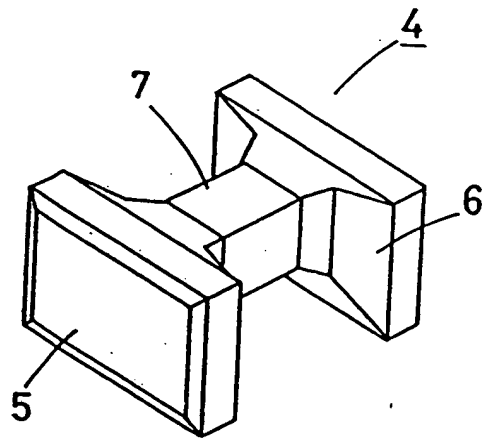


Figure 2

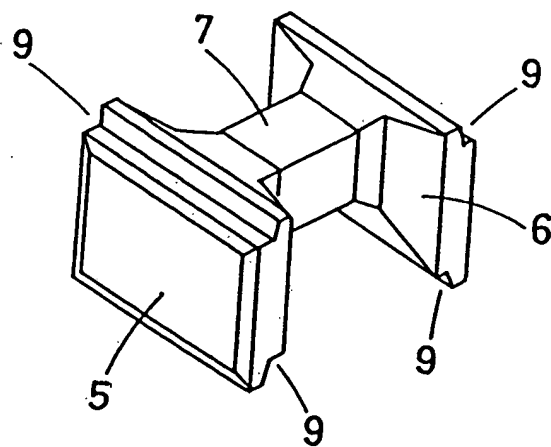


Figure 3

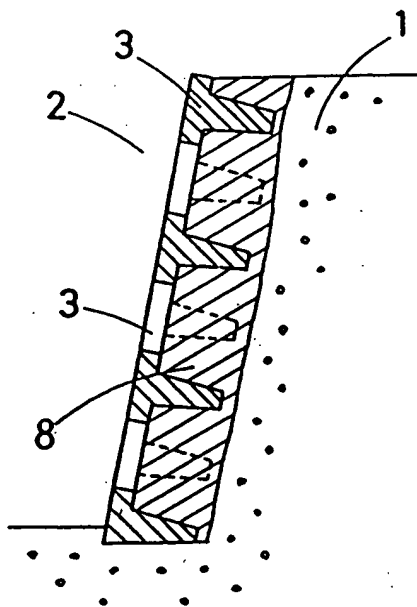


Figure 4

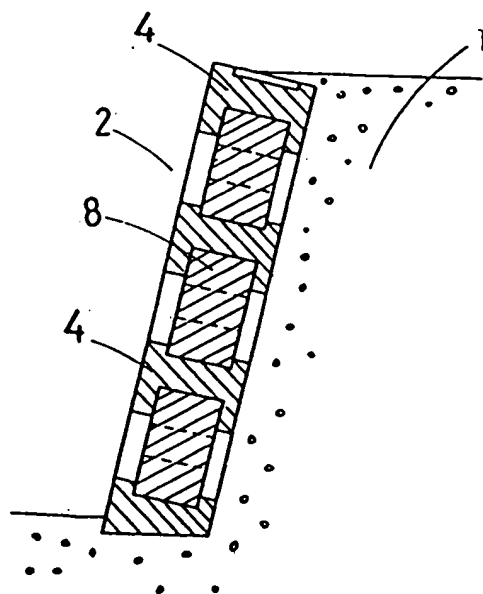


Figure 5

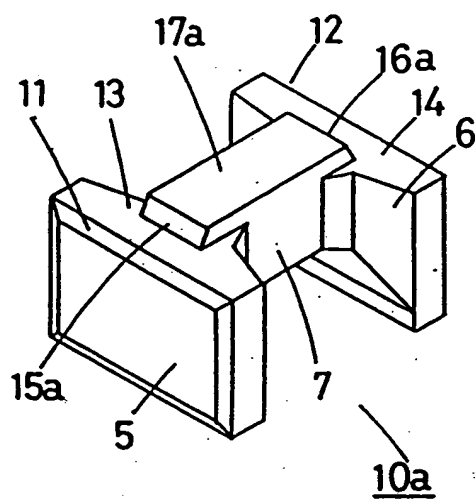


Figure 6

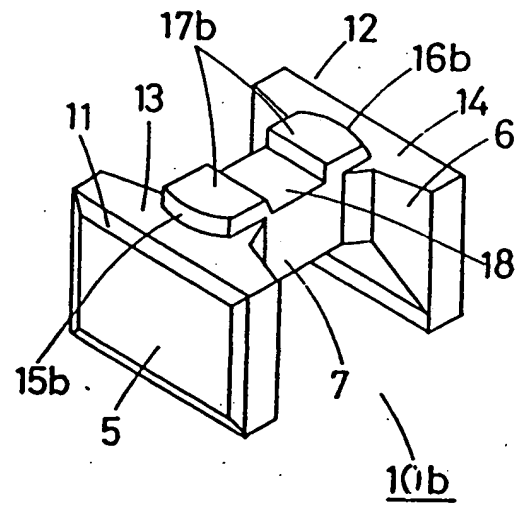


Figure 7

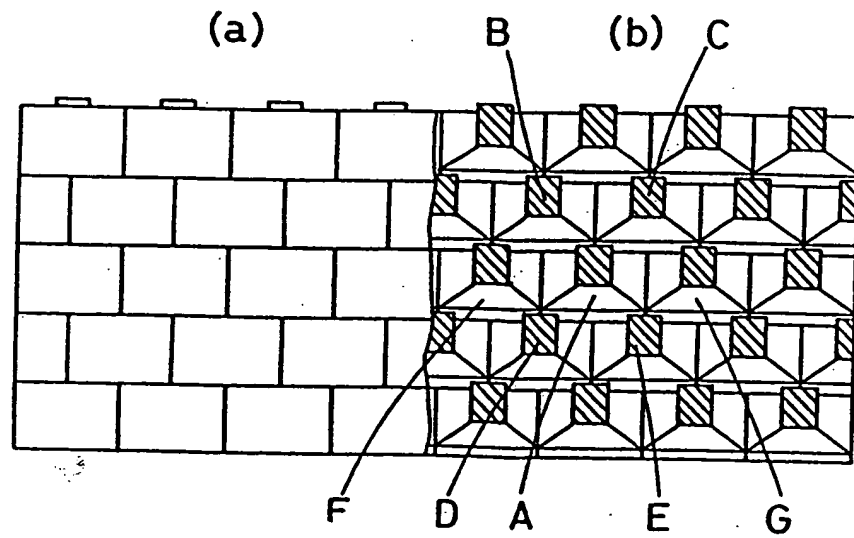


Figure 8

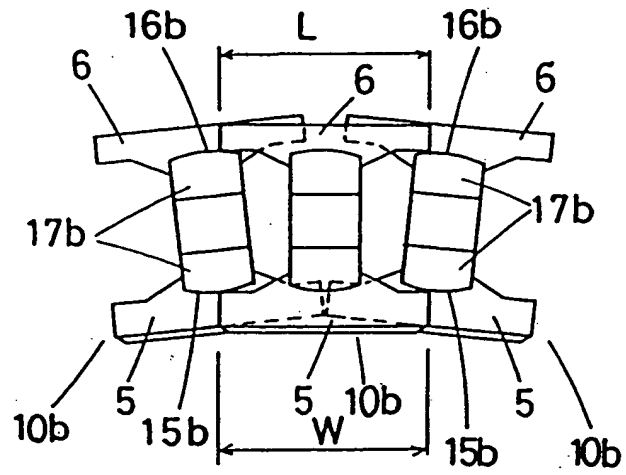


Figure 9

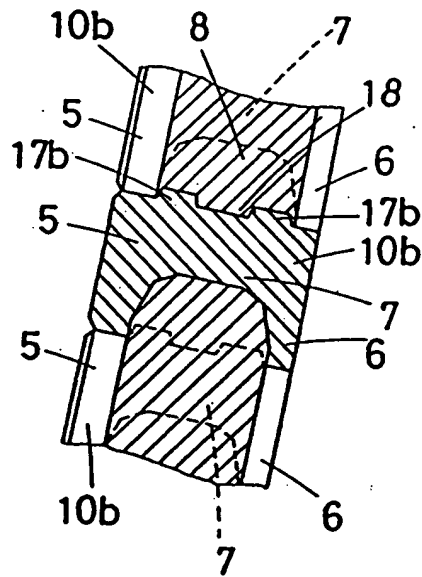


Figure 10

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審査請求 未請求

(全 2 頁)

⑭ 間知ブロック

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⑯ 出 願 人 株式会社福井鉄工所

⑰ 出 願 昭58(1983)4月22日

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⑲ 代 理 人 弁理士 西孝雄

⑳ 実用新案登録請求の範囲

(1) 矩形の面板と控板とを柱状体によって連結一体化した形状を有するコンクリート製間知ブロックにおいて、面板及び控板の一側縁の中央部内方にその側縁面より突出する段面を有する突出部が設けられており、この段面がこのブロックの前記側縁に隣接させて設置される同一形状のブロックの隅部における面板及び控板の内法面に嵌合されることを特徴とする、間知ブロック。

(2) 前記段面が、部分円筒面ないし部分鞍頭円錐面である、実用新案登録請求の範囲第1項記載の間知ブロック。

図面の簡単な説明

第1図及び第2図は従来の間知ブロックを示した斜視図であり、第4図及び第5図はこれらを積み上げて構築された擁壁の断面を示した図である。

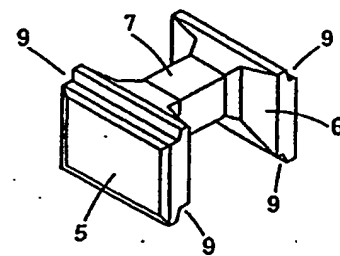
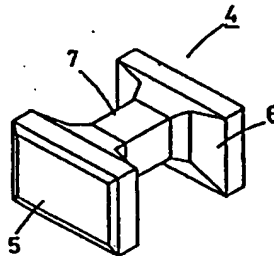
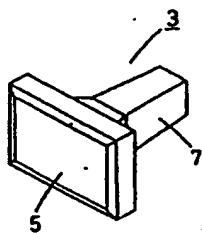
第3図は空積みされたブロック相互の位置ずれを防止するインローを設けた従来の間知ブロックを示す斜視図である。第6図は本考案の間知ブロックの第1実施例を示す斜視図、第7図は第2実施例を示す斜視図であり、第8図aは間知ブロックによって構築された擁壁の正面図、同図bは本考案の間知ブロックを空積みした状態をブロックの面板を切除して示した断面正面図、第9図は第2実施例のブロックによって湾曲した擁壁を構築する際のブロック相互の関係を示す平面図、第10図は第2実施例のブロックによって構築された擁壁の部分断面図である。

図中、5は面板、6は控板、7は柱状体、10は間知ブロック、11、12は一側縁、13、14は側縁面、15、16は段面、17は突出部である。

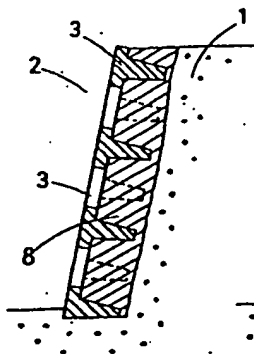
第1図

第2図

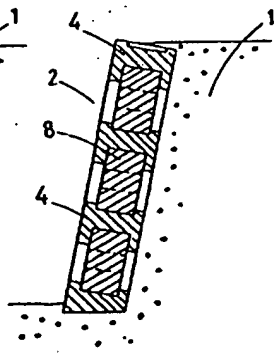
第3図



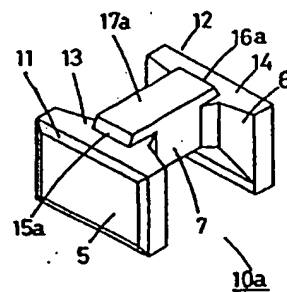
第4図



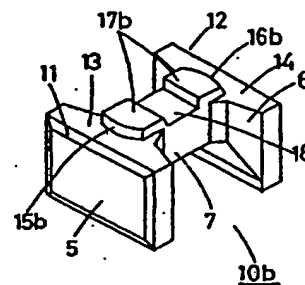
第5図



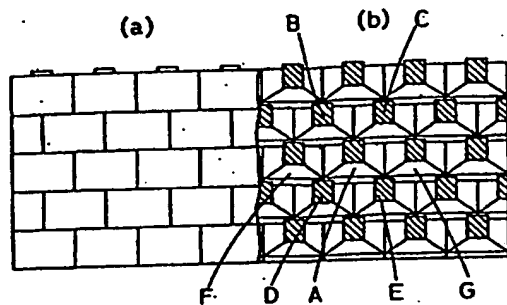
第6図



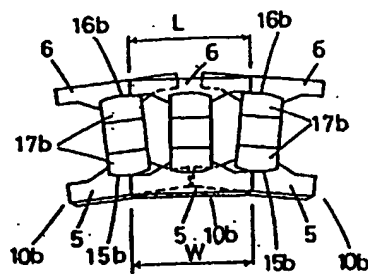
第7図



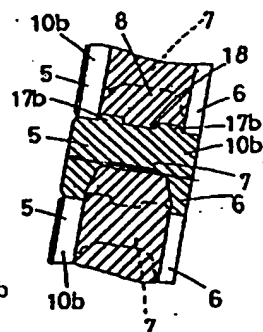
第8図



第9図



第10図



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⑨ 日本国特許庁 (JP)

⑩ 実用新案出願公開

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⑭ 開知ブロック

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明 細 書

1. 考案の名称

間知ブロック

2. 実用新案登録請求の範囲

(1) 矩形の面板と控板とを柱状体によって連結一体化した形状を有するコンクリート製間知ブロックにおいて、面板及び控板の一側縁の中央部内方にその側縁面より突出する段面を有する突出部が設けられており、この段面がこのブロックの前記側縁に隣接させて設けられる同一形状のブロックの隅部における面板及び控板の内法面に嵌合されることを特徴とする、間知ブロック。

(2) 前記段面が、部分円筒面ないし部分幾何円錐面である、実用新案登録請求の範囲第1項記載の間知ブロック。

3. 考案の詳細な説明


この考案は、法面の崩壊を防止する為に法面に沿って積み上げられて擁壁^Vを構築する際に用いられる間知ブロックの改良に関するものである。

従来、間知ブロックとしては第1図及び第2図

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に示すような形状のものが一般的であり、第4図及び第5図に示すように土地の法面に沿って積み上げられて土砂1の崩壊を防止する擁壁2が構築される。ここで3、4は単位の間知ブロックであり、第2図及び第5図に示すブロック4は矩形の面板5と控板6とを柱状体7で連結一体化した構造を有しており、第1図及び第4図に示すブロック3は面板5と柱状体7のみからなるものである。8は積み上げられたブロック3、4の空所に打ち込まれた駒込めコンクリートである。

控板6を有していない間知ブロック3は、ブロックのみを積み上げて行く（空積みする）ことができないので、ブロック3・・・3の空所に駒込めコンクリート8を流し込んでこれを固化させながら1段ずつ積み上げる必要があり、施工に手間がかかるという欠点がある。これに対して控板6を有する間知ブロック4は、ブロックを複数段空積みした後その空所に駒込めコンクリートを流し込んで固化させるという施工方法を採用することができ、施工を能率良く行うことができる。ところ

がこのような控板 6 を有するブロック 4 であっても、空積み時にはブロック 4 …… 4 相互が面板 5 と控板 6 との側縁面において単に当接して載置されているだけであるから、ブロック 4 …… 4 を正確に積み上げるのに細心の注意を必要とし、駒込めコンクリート 8 の打ち込み時にブロックが移動して擁壁面に出入りが生じ易い欠点があった。また、このようなブロック 4 は、柱状体 7 と控板 6 との連結部に応力が集中して当該部分が破損しやすく、駒込めコンクリート 8 とブロック 4 との付着が悪いとこの部分が破断してブロックが土圧によって擁壁面から突出してくる欠点があった。

空積み時のブロック相互のずれを防止する為に、第 3 図に示すように、面板 5 及び控板 6 の側縁にインロウ 9 を設けたものも知られているが、このようなインロウ 9 を設けると面板 5 側縁部の肉厚が薄くなって破損しやすくなり、このようなブロックでは湾曲した擁壁を構築することができないという問題が生ずる。

この考案は、このような従来の開知ブロックの

問題点を解決する為になされたもので、簡単な構造でかつブロックの強度を損ねることなく空積み時におけるブロック相互の位置ずれを確実に防止することができる間知ブロックを提供することを目的としてなされたものであり、更に、ブロックの柱状体と控板との連結部が破断した場合にも土圧によるブロックの突出を防止することができ、湾曲した擁壁を構築することも可能にすることができる間知ブロックを提供しようとするものである。

即ちこの考案の間知ブロックは、第6図及び第7図の実施例に示すように、ブロック10a, 10bの面板5及び控板6の一側縁11, 12の中央部内方にその側縁面13, 14より突出する段面15, 16を有する突出部17が設けられており、この段面15, 16がこのブロック10a, 10bの前記側縁11, 12に隣接させて設けられる同一形状のブロックの隅部における面板及び控板の内法面に嵌合されることを特徴とするものである。尚、第6図は本考案の第1実施例を、第

7 図は第 2 実施例を示したものであり、両者においてその態様の異なる部分には符号に添字 a , b が付されており、本明細書中、両者に共通の構成及び作用を説明する際には当該添字 a , b を省略した。

第 8 図 (a) は間知ブロック 10 a , 10 b によって構築された隔壁面を示す正面図、同図 (b) は空積みされた間知ブロック 10 a , 10 b の面板 5 を切除して示した断面正面図である。第 8 図においてある単位ブロック A に注目した場合、このブロック A は自身の突出部 17 の段面 15 , 16 とその上部に積み上げられたブロック B , C の面板 5 及び控板 6 の隅部内法面との嵌合によって該ブロック B , C と係合し、ブロック A の面板 5 及び控板 6 の下方両隅部はこのブロック A の下方に位置するブロック D , E の突出部 17 の段面 15 , 16 と嵌合して該ブロック D , E と係合し、更にこれらのブロック B , C , D , E を介して相隣るブロック F , G と係合しているから、この単位ブロック A はこれを取り巻く総てのブロック B

ないしGと相互に係合されることとなり、これらの係合によってブロック積み上げ時におけるブロック相互の位置決めが容易に行われて該作業を短時間で行うことができるようになり、胴込めコンクリート投入時等においてもブロック相互の位置ずれが生ずる虞は全くなくなる。また、ブロックの強度が低下したりブロックの形状が複雑となって成形が困難になる虞も全くない。

更に第2実施例に示すように、突出部17bの段面15b、16bを部分円筒面ないし部分裁頭円錐面としてやれば、第9図に示すように上下に相隣るブロックを角度をもたせて設けた場合にも、段面15b、16bと面板5及び控板6の隅部とを嵌合させることが可能となり、ブロック10b相互に係合させながら湾曲した擁壁を構築することも可能となる。この場合、前記部分円筒面ないし部分裁頭円錐面の半径は、大略面板5と控板6との内法間隔に等しい。構築される擁壁の湾曲が突方向である場合には、控板6の長さLを面板5の長さWより短かくする必要があるが、この

控板 6 の長さの調節はブロック 10 b 成形用の型枠の空所に適宜込物を入れることによって容易に行うことができる。

更にこの第 2 実施例のブロック 10 b は、その突出部 17 b の中央部に凹部 18 が設けられているが、このような凹部 18 を設けてやれば、第 10 図に示すように、耐込めコンクリート 8 がこの凹部 18 にも進入してたとえ控板 6 と柱状体 7 との連結部分が破断してもブロックが突出してくることのない構造とすることができる。

以上のように本考案の間知ブロックは、簡単な構成によって積み上げられたブロック相互に係合されて位置ずれを生ずることがないようにしたものであり、このブロック相互の係合によってブロック相互の位置が規制されるから、ブロック積み上げ時における位置決めが容易で作業を容易迅速に行うことが可能となる。

更に第 7 図に示す実施態様を採用することにより、ブロック相互に係合させた状態で湾曲した構造物を構築することも可能であり、ブロックの破損

による擁壁面からのブロックの突出を防止すること
も可能であるという優れた効果を得ることがで
きる。

4. 図面の簡単な説明

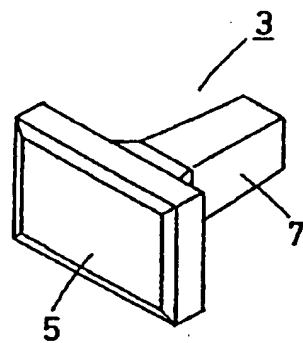
第1図及び第2図は従来の間知ブロックを示した斜視図であり、第4図及び第5図はこれらを積み上げて構築された擁壁の断面を示した図である。第3図は空積みされたブロック相互の位置ずれを防止するインロウを設けた従来の間知ブロックを示す斜視図である。第6図は本考案の間知ブロックの第1実施例を示す斜視図、第7図は第2実施例を示す斜視図であり、第8図(a)は間知ブロックによって構築された擁壁の正面図、同図(b)は本考案の間知ブロックを空積みした状態をブロックの面板を切除して示した断面正面図、第9図は第2実施例のブロックによって湾曲した擁壁を構築する際のブロック相互の関係を示す平面図、第10図は第2実施例のブロックによって構築された擁壁の部分断面図である。

図中、5は面板、6は控板、7は柱状体、10

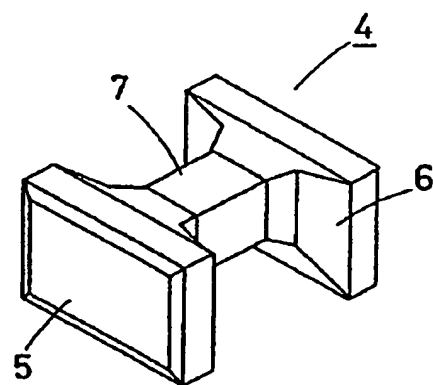
は間知ブロック、11, 12は一側縁、13, 14は側縁面、15, 16は段面、17は突出部である。

代理人 弁理士 西 孝雄

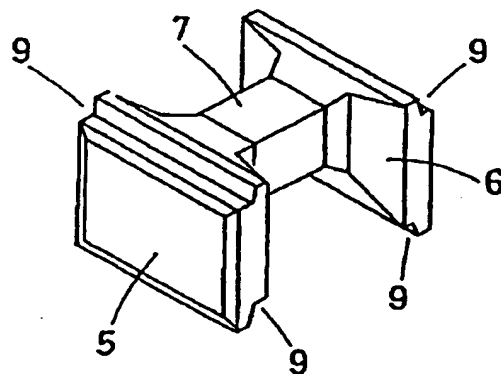
第 1 図



第 2 図



第 3 図

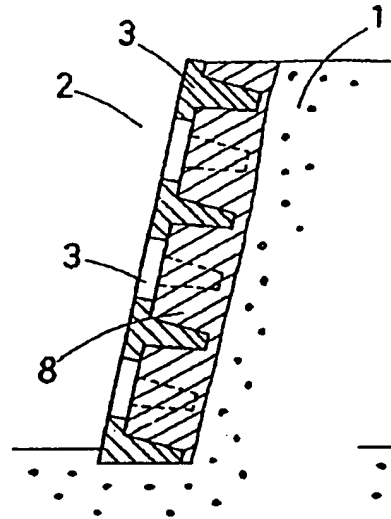


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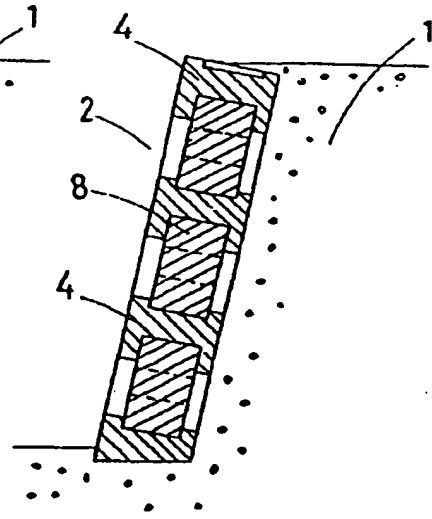
代理人 弁理士 西 孝 雄

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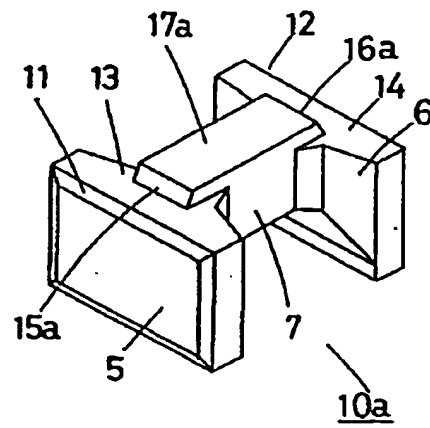
第 4 圖



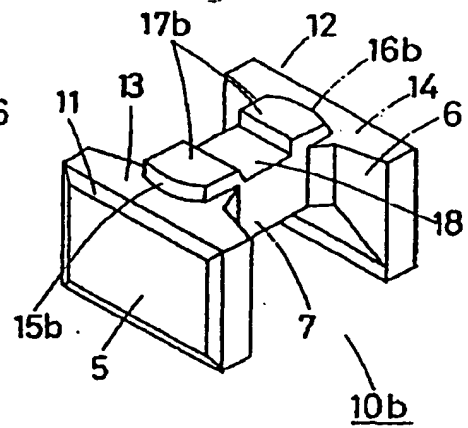
第 5 圖



第 6 圖



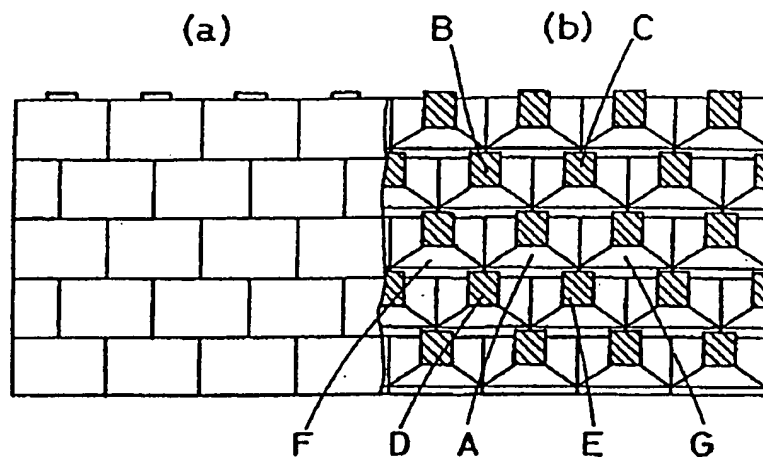
第 7 圖



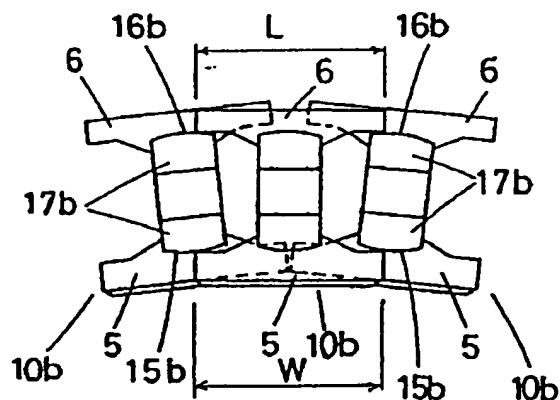
實例 59

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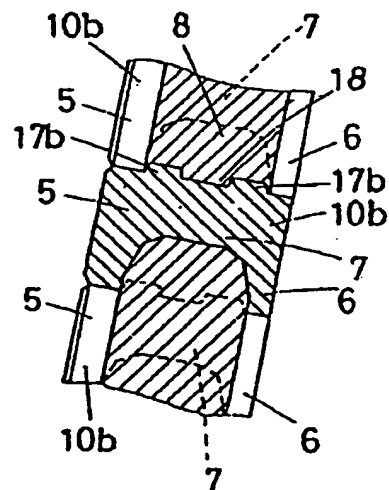
第 8 図



第 9 図



第 10 図



代理人 弁理士 西 幸 雄

特許 167842

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1. Title of the Invention

KENCHI BLOCK

2. CLAIMS

(1) A concrete Kenchi block having a rectangular face plate and a support plate integrally connected by a beam, the block being characterized by:

a projection, which has step surfaces, located inward from the middle of an end of the face plate and the middle of an end of the support plate, wherein the projection projects from end faces of the face plate and the support plate and wherein the step surfaces are fit between inner corner surfaces of a face plate and a support plate of an identical, adjacent block.

(2) The Kenchi block according to claim 1, wherein the step surfaces are partial, cylindrical surfaces or partial, truncated conical surfaces.

3. Detailed Description of the Invention

The present invention relates to Kenchi blocks that are stacked along an inclined plane to form a wall.

Figs. 1 and 2 show typical shapes of prior art Kenchi blocks. As shown in Figs. 4 and 5, the blocks are stacked along an inclined plane of earth to form a wall 2 preventing soil 1 from sliding down. Reference numerals 3, 4 each denotes a unit of a Kenchi block. Each of the blocks 4 shown in Figs. 2, 5 has a rectangular face plate 5 and a support

plate 6, which are integrally connected by a beam 7. Each of the blocks 3 shown in Figs. 1, 4 includes a face plate 5 and a beam 7. Reference numeral 8 denotes concrete filled in the space between the stacked blocks 3 and in the space between the stacked blocks 4.

The blocks 3, which do not have the support plates 6, cannot be stacked alone (upon each other with empty space in between). Therefore, it is necessary to fill concrete 8 between the blocks 3 and solidify the concrete 8 before stacking the next row of blocks. This requires much time and effort. Contrarily, multiple rows of the blocks 4, which are provided with the support plates 6, may be stacked upon each other before filling the space between the blocks with concrete and solidifying the concrete. This enables efficient construction. However, the blocks 4 with the support plates 6 have a shortcoming in that careful attention is needed to accurately position the blocks 4 when stacking the blocks 4 without filling the space therebetween. This is because the blocks 4 only contact each other only at end faces of the face plates 5 and support plates 6. In addition, recesses and projections may be formed in the wall due to displacement of the blocks when filling the concrete 8. Further, in such blocks 4, stress may concentrate and break connecting portions between the beams 7 and the support plates 6. If there are portions in which adhesion between the blocks 4 and the concrete 8 is insufficient, such portions may break. Consequently, the blocks at such portions may be pushed out of the wall by the force produced by the soil.

A block provided with flanges 9 extending from the ends of a face plate 5 and a support plates 6, as shown in Fig. 3, prevents displacement of the blocks when stacking the blocks without filling the spaces in between. However, providing

such flanges 9 decreases the thickness and, hence, the strength of the end of the face plate 5. Further, a curved wall cannot be formed with such block.

This invention solves the above-described problems of the conventional Kenchi blocks. Accordingly, it is an object of the present invention to provide blocks that have a simple structure and prevent, without decreasing the strength of the blocks, displacement when stacking the blocks without filling the space between the blocks. It is another object of the invention to provide Kenchi blocks that are prevented from being pushed out by the force of soil even when the connecting portions between the beams and support plates of the blocks are damaged and that can be used to form a curved wall.

The Kenchi blocks according to the present invention are each provided with a projection 17 having step faces 15, 16, as shown in Figs. 6, 7. The projection 17 extends between the middle of an end face 13 of an end 11 of a face plate 5 of each of blocks 10a, 10b and the middle of an end face 14 of an end 12 of a support plate 6 of each of the blocks 10a, 10b. The step surfaces are fit between inner corner surfaces of a face plate and a support plate of an identical adjacent block. Figs. 6, 7 respectively show a first embodiment and a second embodiment according to the present invention. Reference alphabets a, b in Figs. 6, 7, respectively, denote differing portions in the first and the second embodiments, but are omitted in the specification.

Fig. 8(a) is a front view showing a wall formed by Kenchi blocks 10a, 10b. Fig. 8(b) is a cross-sectional front view showing the blocks 10a, 10b without surface plates 5. Fig. 8 shows block A, which includes a projection 17 having step surfaces 15, 16. The step surfaces 15, 16 of block A is fit between the inner corner surfaces of the face plate 5 and

the support plate 6 in blocks B, C, which are stacked above block A. This engages block A with blocks B, C. The lower corners of the face plate 5 and the support plate 6 in block A are fit to projections 17 of blocks D, E, which are located under block A. This engages block A with blocks D, E. Block A is further engaged with adjacent blocks F, G by means of blocks D, E. Thus, block A is engaged with every surrounding block B-G. The engagement facilitates the positioning of the blocks relative to each other when stacking the blocks and enables the stacking to be performed within a short period of time. Further, the blocks are not displaced when filling concrete. In addition, the strength of the blocks does not decrease and the shape of the blocks remains simple. Thus, the blocks do not complicate molding.

In a second embodiment, the surface steps 15b, 16b of projection 17b are partial, cylindrical surfaces or partial, truncated conical surfaces. As shown in Fig. 9, this enables the steps 15b, 16b to fit between corners of the face plate 5 and the support plate 6 when lower and upper adjacent blocks are arranged at certain angles as shown in Fig. 9. Therefore, a curved wall can be formed by mutually engaging the blocks 10b. In this case, the radius of the partial, cylindrical surfaces or the partial, truncated conical surfaces is substantially equal to the distance between the inner surfaces of the face plate 5 and the support plate 6. To curve the wall outward, it is necessary that the length L of the support plate 6 be shorter than length W of the face plate 5. However, the length of the support plate 6 can easily be adjusted by properly placing a filling in a cavity of a mold used to produce the block 10b.

As shown in Fig. 10, each of the blocks 10b of the second embodiment has a recess 18 provided in the middle of its projection 17b. Such recess 18 prevents each block from

being pushed outward even if a connecting portion between the rear plate 6 and the beam 7 breaks since the concrete 8 fills the recess 18.

As described above, the blocks of the present invention engage stacked blocks and prevent displacement of the blocks with the simple structure. The relative positions of the blocks are restricted by the mutual engagement of the blocks. Thus, the positioning of the blocks when stacking the blocks is facilitated and performed within a short period of time.

The embodiment shown in Fig. 7 has the following advantages. A curved wall is formed by engaging the blocks. The blocks are prevented from jutting out from the wall even if the blocks are damaged.

4. Detailed Description of the Drawings

Figs. 1, 2 are perspective views showing prior art blocks. Figs. 4, 5 are cross-sectional views showing walls formed by stacking the prior art blocks. Fig. 3 is a perspective view of a prior art block provided with flanges for preventing displacement of the blocks. Fig. 6 is a perspective view showing a block according to a first embodiment of the present invention. Fig. 7 is a perspective view of a block according to a second embodiment of the present invention. Fig. 8(a) is a front view of a wall formed by the blocks of the present invention. Fig. 8(b) is a cross-sectional front view showing the blocks 10a, 10b without surface plates 5. Fig. 9 is a plan view showing mutual relations of the blocks of the second embodiment forming a curved wall. Fig. 10 is a partial cross-sectional view of the wall formed by the blocks of the second embodiment.

Detailed Description of Reference Numerals

5---face plate, 6---support plate, 7---beam, 10---Kench block, 11 and 12---end, 13 and 14--- end face, 15 and 16---

step surface, 17---projection

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